

### **ABSTRACT**

The invention provides a process for purifying water containing soluble species capable of forming one or more sparingly soluble salts or minerals, said process comprising feeding a pressurized water stream into a treatment zone having one or more membranes disposed therein, passing said stream along said membrane(s) to recover a permeate and to withdraw a concentrate therefrom while periodically reversing the direction of the flow of said stream in said treatment zone, wherein the periodicity of the flow reversal is such that said one or more membranes are exposed to supersaturation conditions evolving in said water stream for a period of time which is less than the time required for said supersaturated water stream to precipitate one or more of said sparingly soluble salts and/or minerals therefrom.